

# El Paso Water Utilities

## Northeast El Paso Master Plan

### EXECUTIVE SUMMARY



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## INTRODUCTION

In August, 2003 the El Paso Water Utilities Public Service Board (PSB) authorized Kimley-Horn & Associates (KHA) to Master Plan their property located in northeast El Paso to comply with the PSB rules and regulations, which establishes that land sales greater than 50 acres shall be master planned. The objective of the master plan is to protect and enhance the value of the PSB land by proposing responsible growth and to maximize the potential of the PSB properties.

The northeast master plan proposes a general plan for the development of the property including the layout of arterial streets, open areas, sites for public facilities and utilities. The plan studies the available and required infrastructure required to sustain the proposed community. Drainage, water and sanitary sewer service, reclaimed water distribution, transportation and land use distribution were carefully studied in the process of developing the master plan.

## PROPERTY DESCRIPTION

The Northeast Master Plan focuses on the PSB properties bounded by the Franklin Mountains on the west, S.H. 54 on the South-East, and the Texas-New Mexico state line on the North. The total area of the land is approximately 16,000 acres.

The master planned property is mostly vacant land with the North Hills subdivision being the major development within the boundaries described above. Other industrial facilities are located within the boundaries of the property such as the El Paso Electric Company Newman power plant, El Paso Natural Gas plant, the El Paso Solid Waste McCombs landfill and a quarry. The Painted Dunes Golf Course is located north of S.H. 54 neighboring the PSB properties making it a prospect for the planning of a retirement/resort community around the facility.

The existing projected land use plan from the City of El Paso Planning Department includes mostly open space with a large corridor of industrial use and large “pods” of residential use of 1,000-2,000 acres. Portions of mixed use and a few small commercial pads of 10 acres or less are included.

## MASTER PLAN DEVELOPMENT

In order to plan for the future, it was necessary to acknowledge the existing conditions of the land and available infrastructure. A full report was produced to establish the existing conditions. (See Existing conditions report by KHA, November 2003). Public input from neighborhood committees and public agencies was an integral part for the development of the Master Plan. Several meetings were held with stakeholders in public facilities (*NE Command Center 12/03*) and additional presentations were given to specific community groups and public agencies. (*The City of El Paso and Steering Committee 9/03, The Texas Parks and Wildlife 01/04, The Home Builders Association 1/04*)

Five master plan concepts were developed by the consultant team with the objective of including, to the extent possible, all stakeholder input. The scope of work originally called for three (3) concepts that eventually evolved into two (2) more concepts and the final being an iteration of all the concepts. Two presentations were given to the PSB for approval (*12/03 and 05/04*). Other presentations of the final Master Plan were given to stakeholders and public agencies and the recommended plan (Modified Alternative E) was approved by the PSB on June 9, 2004.

## FINAL MASTER PLAN DESCRIPTION

The final Master Plan incorporates various planning models. It introduces new urbanism and encourages smart growth. It incorporates a curvilinear arterial system with a semi-grid arterial system to maintain connectivity and transition from the existing developments.

A Town center with  $\pm 850$  acres of commercial, mixed-use and high density residential was incorporated to centralize the commercial activity to create a “place” where people can interact and major community activities can occur. The Town Center exploits the economic potential of a community as large as Northeast El Paso.

The curvilinear arterial layout allows the creation of super-pods (700-1000 acres), which leads to the creation of unique residential developments. The curvilinear arterial layout caused the revision of previously planned alignments of roadways such as McCombs Road and the Northeast Parkway. The alignments proposed by this plan for these roadways have not been approved by the City of El Paso or by the Texas Department of Transportation (TxDOT), although TxDOT is currently in the schematic development phase of the Northeast Parkway. The effect of unknown alignments of major arterials through the site may slightly alter proposed land uses. Other arterials for which this plan proposes modifications to the alignment will be under the jurisdiction and review of the City of El Paso. The City will require a request to update its Master Thoroughfare Plan (MTP) in order for the alignments of these arterials to be changed prior to development. Schools and parks were planned next to each other to enhance the City/School Districts (El Paso and Ysleta) resources and create community gathering places.

Some industrial use was required to be incorporated to create a transition from the existing industrial facilities to other types of uses, maximize the potential of the proposed Northeast Parkway and house the existing land fill. The construction of the Northeast Parkway will attract more industrial-type traffic to the PSB property, thus industrial land use was designated along the future freeway to better use the facility and the available land. Additionally a retirement community/resort was proposed adjacent to the Painted Dunes Golf course with the intention of attracting military retirees. The retirement community/resort is intended to provide a contained residentially designated area which would include amenities for residents (golf course), fulfill immediate commercial needs through the incorporation of a small amount of commercially designated areas, and a school to serve the community. This area contains approximately 1,231 acres. See Table 1.

The Master Plan is divided into two (2) phases of development. The first phase (Phase 1) comprised of  $\pm 5,000$  acres, with residential, mixed-use and commercial uses, is the southern portion of the property. The second phase (Phase 2) being  $\pm 11,000$  acres, with industrial, mixed-use and residential uses is the northern remaining portion of the property. See attached exhibit for reference.

Phase 1 is planned in sub-phases of probable development with a full development horizon of approximately 30 years. The master plan, with the two phases will be submitted to the City of El Paso as an amendment request for the City’s Comprehensive Plan (Plan for El Paso). Phase 1 will be submitted as a Land Study.

## FINAL MASTER PLAN FACTS

Final Land Use distribution is shown in Table 1.1.

**TABLE 1. Land Use Distribution.**

LAND USE	PHASE 1 (Acres)	PHASE 2 (Acres)	PAINTED DUNES COMMUNITY (Acres)	TOTAL (Acres)
COMMERCIAL	397	685	34	1,082
INDUSTRIAL	-	1,217	-	1,217
MIXED USE-RETAIL	245	270	-	515
MIXED USE-OFFICE	505	718	-	1,223
PUBLIC USE	6	12	-	18
PARKS	286	236	10	522
NTB	963	610	-	1,573
HIGH DENSITY RESIDENTIAL*	601	795	91	1,396
MEDIUM DENSITY RESIDENTIAL*	1,047	3,324	684	4,371
LOW DENSITY RESIDENTIAL	653	1,474	-	2,127
SCHOOL	176	255	15	431
PAINTED DUNES GOLF COURSE	-	305	305	305
INFRASTRUCTURE (R.O.W.)	301	884		1,185
<b>TOTAL</b>	<b>5,180</b>	<b>10,785</b>	<b>1,139</b>	<b>15,965</b>
* Neighborhood Commercial areas are included in High and Medium density residential areas.				

For Storm Drainage Management it is proposed, in this Master Plan, to include improvements to mitigate/control the storm runoff generated within the study property. A combination of channels, culverts and detention facilities is proposed throughout the study area.

After exploring several alternatives for drainage control, an option was selected that will strategically control storm run-off from phase 1 and 2 without incurring in too much infrastructure construction and maximizing the existing infrastructure. The Drainage Master plan focuses only on phase 1 and proposes to include the infrastructure necessary to control the runoff that will be generated in the future from phase 2. The storm model generated for this study was based on the assumption of ultimate build out condition. Refer to Northeast Master Plan final report for details.

**TABLE 2. Master Drainage Estimated Projected Costs.**

STUDY	FLOOD CONTROL	LAND VALUE	TOTAL
PREVIOUS CLOMR	\$ 54,566,221	\$ 5,820,000	\$ 60,386,221
NE MASTER PLAN	\$ 35,645,731	\$ 1,940,000	\$ 37,585,731

One important portion of the Master Plan involves the study of the Transportation/Traffic impacts the master plan may have on existing and future traffic. The master plan proposes a series of arterials ranging from Super Arterials to Collectors. However, a Traffic Impact Analysis to determine the feasibility of the proposed roadway system was not part of the scope of the Master Plan. A future TIA will be required to validate the proposed transportation system. Table 3 shows the estimated costs of the proposed roadway system for Phase1. Table 4 shows the total estimated projected costs for Phase1 and Phase 2 combined.

**TABLE 3. Proposed Transportation Infrastructure & Projected Total Costs (Phase1).**

DESCRIPTION	ROADWAY TYPE	NUMBER OF LANES	R.O.W. WIDTH	LINEAR FEET OF ALIGNMENT	COST PER LINEAR FEET		LF COST LOW	LF COST HIGH
					Low	High		
Total Super Arterial Street with Bike Lanes	Super Arterial	8	146	22,596	\$ 700.00	\$ 900.00	\$ 15,817,200.00	\$ 20,336,400.00
Total Major Arterial Street	Major Arterial	6	110	9,393	\$ 525.00	\$ 650.00	\$ 4,931,325.00	\$ 6,105,450.00
Total Minor Arterial Street	Minor Arterial	4	76	52,560	\$ 325.00	\$ 425.00	\$ 17,081,980.50	\$ 22,337,974.50
Total Collector Street	Collector	4	64	79,576	\$ 225.00	\$ 325.00	\$ 18,132,325.25	\$ 25,862,164.25
Totals				164,125			\$ 55,962,830.75	\$ 74,641,988.75

**TABLE 4. Proposed Transportation Infrastructure & Projected Total Costs (Ph 1&2)**

DESCRIPTION	ROADWAY TYPE	NUMBER OF LANES	R.O.W. WIDTH	LINEAR FEET OF ALIGNMENT	COST PER LINEAR FEET		LINEAR FOOT COST LOW	LINEAR FOOT COST HIGH
					Low	High		
Total Super Arterial Street with Bike Lanes	Super Arterial	8	146	43,359	\$ 700.00	\$ 900.00	\$ 30,351,300.00	\$ 39,023,100.00
Total Major Arterial Street	Major Arterial	6	110	24,968	\$ 525.00	\$ 650.00	\$ 13,108,026.75	\$ 16,228,985.50
Total Minor Arterial Street	Minor Arterial	4	76	83,677	\$ 325.00	\$ 425.00	\$ 27,195,125.75	\$ 35,562,856.75
Total Collector Street	Collector	4	64	176,441	\$ 225.00	\$ 325.00	\$ 39,927,017.75	\$ 57,343,386.75
Totals				328,445			\$ 110,581,470.25	\$ 148,158,329.00

The water distribution and waste water collection infrastructure and facilities were master planned based on the phasing plan. Booster stations, reservoirs and distribution mains would be required as soon as development starts occurring. Lift stations, and collection mains would be required as land is being developed. Table 5 shows the estimated total cost of public utilities infrastructure required for each phase and for the total development of the Master Plan.

**TABLE 5. Proposed Public Utilities Projected Costs.**

DESCRIPTION	PHASE 1	PHASE 2	TOTAL
WATER SYSTEM	4,600,000	4,700,000	<b>9,300,000</b>
WASTEWATER SYSTEM	18,500,000	16,200,000	<b>34,600,000</b>
RECLAIMED WATER SYSTEMS	15,000,000	12,800,000	<b>27,800,000</b>
<b>TOTAL</b>	<b>38,100,000</b>	<b>33,700,000</b>	<b>71,700,000</b>

The future potential population was calculated for the Master Plan. Various population projection models were used. The ultimate population growth is solely dependent on the PSB selling property for development and the City of El Paso allowed development standards. Table 6 shows the maximum projected population.

**TABLE 6. Maximum Total Population Projection.**

RESIDENTIAL POPULATION	ACRES	DEVELOPMENT NET	MAXIMUM DENSITY	PERSONS PER HOUSEHOLD	NUMBER OF UNITS	BUILD-OUT POPULATION
LOW DENSITY RES.	2,128	0.75	4	3.5	6,384	<b>22,344</b>
MEDIUM DENSITY RES.	4,372	0.8	8	3.5	27,981	<b>97,933</b>
HIGH DENSITY RES.	1,396	0.8	20	3.5	22,336	<b>78,176</b>
TOWN CENTER RES. URBAN DENSITY	515	0.2	12	1.5	1,236	<b>1,854</b>
TOWN CENTER RES. HIGH DENSITY	515	0.3	30	1.5	4,635	<b>6,953</b>
<b>TOTAL</b>	<b>8,411</b>				<b>62,572</b>	<b>207,259</b>

## CONCLUSION

The Master Plan proposes to maximize the use of land and create a sustainable community, capable of phased growth. The Master Plan incorporates various planning concepts including new urbanism (via the concept of a town center and mix of uses), curvilinear arterial systems, a retirement community/resort, as well as the reservation of parks and school sites, open spaces and creative access to state park facilities. The idea of the proposed master plan is to create a community, a place where people can identify themselves and their place with the location and attributes surrounding them. The master plan's intent is to create a place where people can interact and enjoy the feeling of community.

The northeast master plan provides the means for responsible development protecting the value of the PSB land. It is projected that Phase 1 will be developed  $\pm 30$  years after the first land sale occurs. The total master plan build-out projection is  $\pm 60$  years with a maximum population of 207,000 people.